



41016NW0041 19 HORWOOD

010

Diamond Drilling

Township of Horwood

Report No: 19

Work performed by: Hardiman Bay Mines Ltd

Claim No	Hole No	Footage	Date	Note
S 116596	1	252'	July/63	
	3	241'	July/63	
	5	207'	July/63	
S 116600	2	241'	July/63	
	4	209'	July/63	
S 116605	6	174'	July/63	
	7	220'	July/63	
S 116593	8	247'	Aug/63	
	9	251'	Aug/63	
	10	154'	Aug/63	

10 D.D.H

2196'

Notes:

PROPERTY **HARDIMAN BAY MINES LIMITED**

DIAMOND DRILL RECORD

LOCATION: **LAT. 50' W 100' S of Post #1 Line 64 / 00 W**
DEP. Claim 116596 ~~Line~~ 17 / 20 S

TESTS

Ft.	Dip.	Ast. Bearing	Ft.	Dip.	Ast. Bearing	Core	
						Ft. Received	p.c. Recovery
200'	43°						

ELEVATION OF COLLAR

DATUM

DIRECTION AT START: BEARING **N 25° W (magnetic)**
DIP **45°**

LOGGED BY **F. M. Smith** HOR. COMP. **183.0'**

PURPOSE OF HOLE VER. COMP. **173.0'**

DRILLED BY **Bradley Bros. Limited, Noranda, P.Q.**

SHEET NO. **1 of 1**

SECTION FROM **0** TO **252.0'**

STARTED **July 4, 1963**

COMPLETED **July 7, 1963**

ULTIMATE DEPTH **252.0'**

PROPOSED DEPTH

HONEY PRINTING SERVICE, TORONTO—4804

Distance		ROCK	DESCRIPTION	Sample No.	Length Ft.	ANALYSIS						
From	To					Au.	Ag.	Pb.	Zn.	Cu.	Ave.	
0	40.0		Overburden									
40.0	45.0		Feldspar, porphyry intrusive contact with fine grained grey to green greenstone occasional carbonate seams intruded by basic granular dike									
81.7	83.8		Basic granular dike rock intruded into greenstone intrusive contacts									
83.8	166.0		Greenstone fine grained grey green with occasional carbonate seams, intruded by									
166.0	180.0		Light grey spotted structure spots pink feldspar diorite									
180.0	181.0		Greenstone									
181.0	182.0		Diorite									
182.0	184.0		Greenstone									
184.0	196.0		Diorite intruded									
196.0	209.0		Fine grained siliceous dike rock spotted with much smaller spots of white feldspar - may be later phase of diorite intrusive									
209.0	217.0		Diorite pink feldspar intruding									
217.0	227.0		Greenstone some shearing at contact carbonate seams									
227.0	242.0		Diorite intrusive contacts									
242.0	252.0		Greenstone									
			END OF HOLE									
			Good core recovery									

F. M. Smith

DIAMOND DRILL RECORD

PROPERTY HARDIMAN BAY MINES LIMITED
LOCATION: LAT. 230°N 150°W Post #2 64 / 00 W
 DEP. Claim S 116600 14 / 30 S
ELEVATION OF COLLAR
DATUM
DIRECTION AT START: BEARING S 25° E (magnetic)
 DIP 45°
LOGGED BY F.M. Smith HOR. COMP. 184.0'
 PURPOSE OF HOLE VER. COMP. 156.0'

TESTS

Ft.	Dip.	Ast. Bearing	Ft.	Dip.	Ast. Bearing	Core	
						Ft. Received	p.c. Recovery
200'	37°						

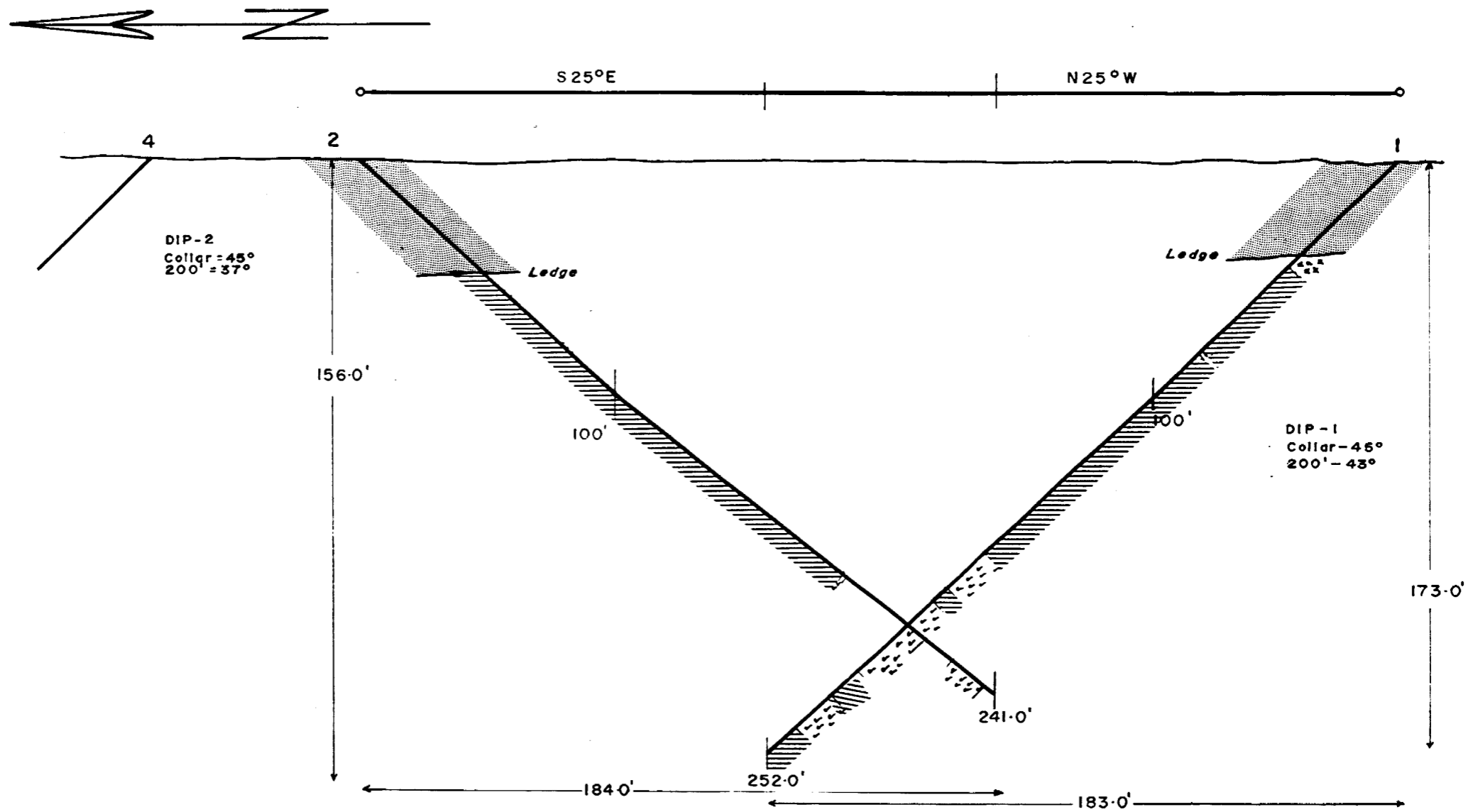
HOLE NUMBER 2
SHEET NO. 1 of 1
SECTION FROM 0 **TO** 241.0'
STARTED July 9th, 1963
COMPLETED July 11th, 1963
ULTIMATE DEPTH 241.0'
PROPOSED DEPTH

DRILLED BY Bradley Bros. Limited, Noranda, P.Q.

HONEY PRINTING SERVICE, TORONTO—4804

Distance		ROCK	DESCRIPTION	Sample No.	Length Ft.	ANALYSIS						
From	To					Au.	Ag.	Pb.	Zn.	Cu.	Ave.	
0	48.0		Overburden - casing									
48.0	205.0		Greenstone amygdaloidal slightly sheared at 45° to core. Amygdules chiefly carbonate has the appearance of flow top material. Amygdules decreasing from 130 ft. from 145 ft. massive fine grained greenstone with occasional carbonate seams									
205.0	206.0		Grey granitic dike									
206.0	225.5		Massive greenstone									
225.5	237.0		Dark grey spotted intrusive rock diorite									
237.0	241.0		Massive greenstone									
			END OF HOLE									
			Good core recovery									

F.M. Smith



Locations

No. 1 50' W., 100' S. of Post I-116596

OR





Line 64+00W, 17+20S

No. 2 150' W., 230' N of Post I-116596

OR

Line 64+00W, 14+30S

LEGEND

-  OVERBURDEN
-  BASIC DIKE
-  PORPHYRY
-  DIORITE
-  GREENSTONE

Hardiman Bay Mines Limited

Section Through Holes Nos. 1 & 2

Scale 40' to 1"

F. M. Smith

July 1963

DIAMOND DRILL RECORD

PROPERTY HARDIMAN BAY MINES LIMITED
 LOCATION: LAT. 280°W 30'S of Post #1 66 4 00 W
 DEP. Claim 116598 16 4 40 S
 ELEVATION OF COLLAR _____
 DATUM _____
 DIRECTION AT START: BEARING S 25° E (magnetic)
 DIP 45°
 LOGGED BY F. M. Smith HOR. COMP. 174.0'
 PURPOSE OF HOLE _____ VER. COMP. 167.0'

TESTS

Ft.	Dip.	Ast. Bearing	Ft.	Dip.	Ast. Bearing	Core	
						Ft. Received	p.c. Recovery
200'	43°						

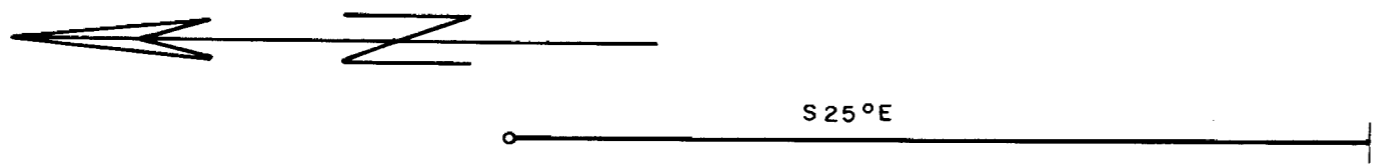
HOLE NUMBER 3
 SHEET NO. 1 of 1
 SECTION FROM 0 TO 241.0
 STARTED July 13, 1963
 COMPLETED July 15, 1963
 ULTIMATE DEPTH 241.0'
 PROPOSED DEPTH _____

DRILLED BY Badley Bros. Limited, Noranda, P.Q.

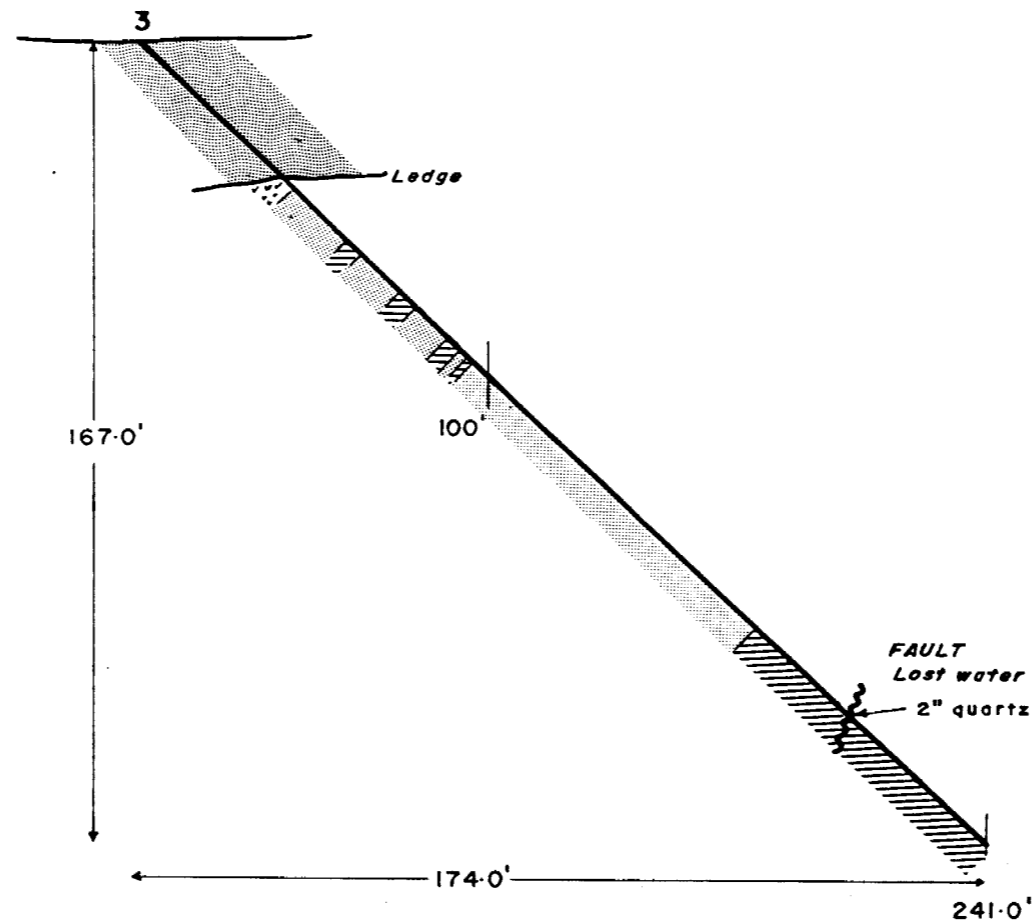
HONEY PRINTING SERVICE, TORONTO—4604

Distance		ROCK	DESCRIPTION	Sample No.	Length Ft.	ANALYSIS						
From	To					Au.	Ag.	Pb.	Zn.	Cu.		Ave.
0	42.0		Casing									
42.0	45.0		Diorite, contact obscured, broken rock,									
45.0	60.5		Coarse grained dark green formation some scattered pyrite mineral intrusive contact with gabbro (?)									
60.5	63.1		Greenstone fine grained greatly altered									
63.1	75.1		Gabbro									
75.1	79.0		Greenstone									
79.0	89.0		Gabbro									
89.0	91.5		Greenstone									
91.5	93.5		Gabbro intrusive contact with greenstone									
93.5	96.0		Greenstone 2" quartz on contact 6" quartz & epidote									
			94.0' - 94.5'									
96.0	196.0		Gabbro seams of epidote 187' & 190" intrusive contact with greenstone									
196.0	241.0		Greenstone 2" quartz at 201.5' broken core some core missing water lost. Evidently a fault no metallic mineral									
END OF HOLE												

F. M. Smith



DIP
Collar = 45°
200' = 43°



LEGEND

- OVERBURDEN
- DIORITE
- GABBRO
- GREENSTONE

Location
280' W., 30' S. of Post I-116596
OR
Line 66W, 16+40S

Hardiman Bay Mines Limited
Section Through Hole No. 3

Scale 40' to 1"
Frank Smith
July 1963

DIAMOND DRILL RECORD

TESTS

Ft.	Dip.	Ast. Bearing	Ft.	Dip.	Ast. Bearing	Core	
						Ft. Received	p.c. Recovery
200'	37°						

HOLE NUMBER 2

SHEET NO. 1 of 1

SECTION FROM 0 TO 209.0'

STARTED July 17th, 1963

COMPLETED July 20th, 1963

ULTIMATE DEPTH 209.0'

PROPOSED DEPTH _____

MONEY PRINTING SERVICE, TORONTO—4604

PROPERTY HARDMAN BAY MINES LIMITED

LOCATION: LAT. 73° W 300' N of Post #2 64 / 00 W

DEF. Claim 116600 13 / 70 S

ELEVATION OF COLLAR _____

DATUM _____

DIRECTION AT START: BEARING N 25° W (magnetic)

DIP 45°

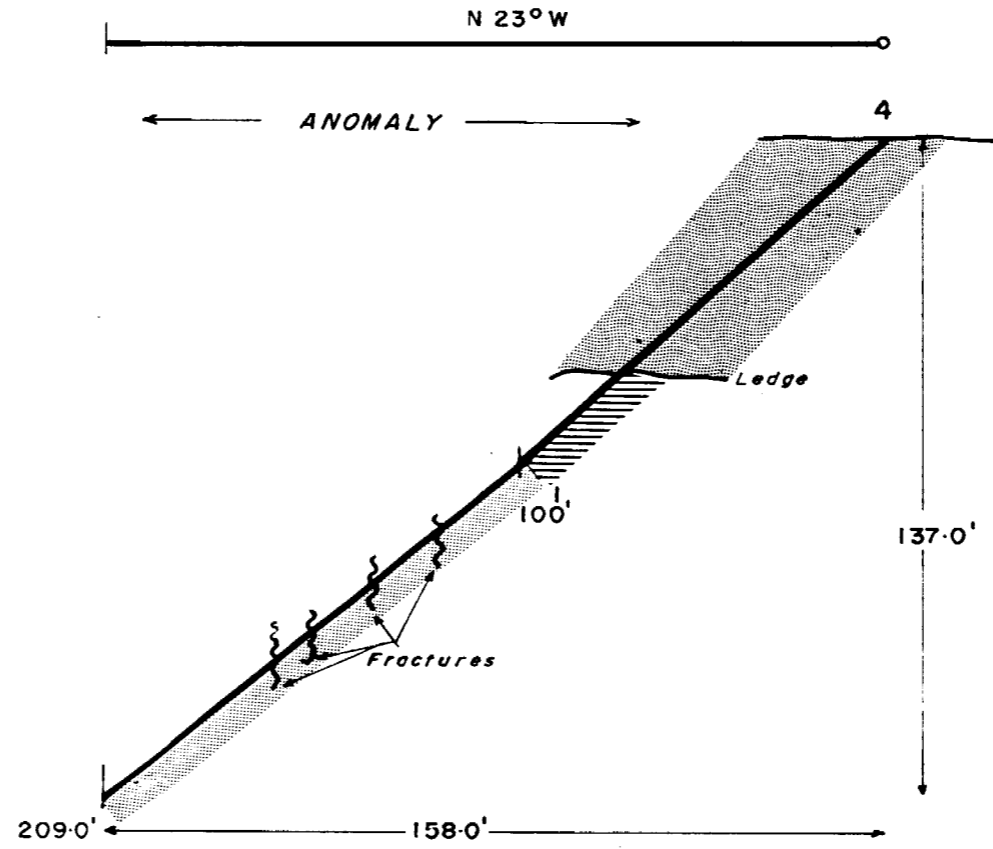
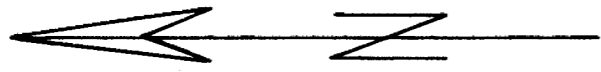
LOGGED BY F. M. Smith HOR. COMP. 158.0'

PURPOSE OF HOLE _____ VER. COMP. 137.0'

DRILLED BY Bradley Bros. Limited, Noranda, P.Q.

Distance		ROCK	DESCRIPTION	Sample No.	Length Ft.	ANALYSIS						
From	To					As.	Ag.	Pb.	Zn.	Cu.	Ave.	
0	72.0		Casing									
72.0	99.0		Greenstone, amygdaloidal grading to massive carbonate seams & some epidote 88' - 90' at 99' contact with									
99.0	209.0		Dark grey coarse grained structure (gabbro) ? Seams of quartz and some epidote, broken ground at 123' & 140', caving condition. Hole cemented at 156', 159' - 167' carbonate seams and sections. Hole stopped at 209', test at 200'									
			Good core recovery.									
			END OF HOLE									

F. M. Smith



DIP
Collar = 45°
200' = 37°

LEGEND

-  OVERBURDEN
-  GABBRO
-  GREENSTONE

Location
180'W., 300'N of Post 2-116600
OR
Line 64W, 13+70S

Hardiman Bay Mines Limited
Section Through Hole No. 4
Scale 40' to 1"

F. M. Smith July 1963

DIAMOND DRILL RECORD

PROPERTY HARDIMAN BAY MINES LIMITED
 LOCATION: LAT. 715'S 660'W of Post #1 72 / 00 W
 DEP. Claim 116596 21 / 60 W
 ELEVATION OF COLLAR _____
 DATUM _____
 DIRECTION AT START: BEARING S 25° E (magnetic)
 DIP 33°
 LOGGED BY F. M. Smith HOR. COMP. 177.0'
 PURPOSE OF HOLE _____ VER. COMP. 104.0'

TESTS

Ft.	Dip.	Ast. Bearing	Ft.	Dip.	Ast. Bearing	Core	
						Ft. Received	p.c. Recovery
200'	27°						

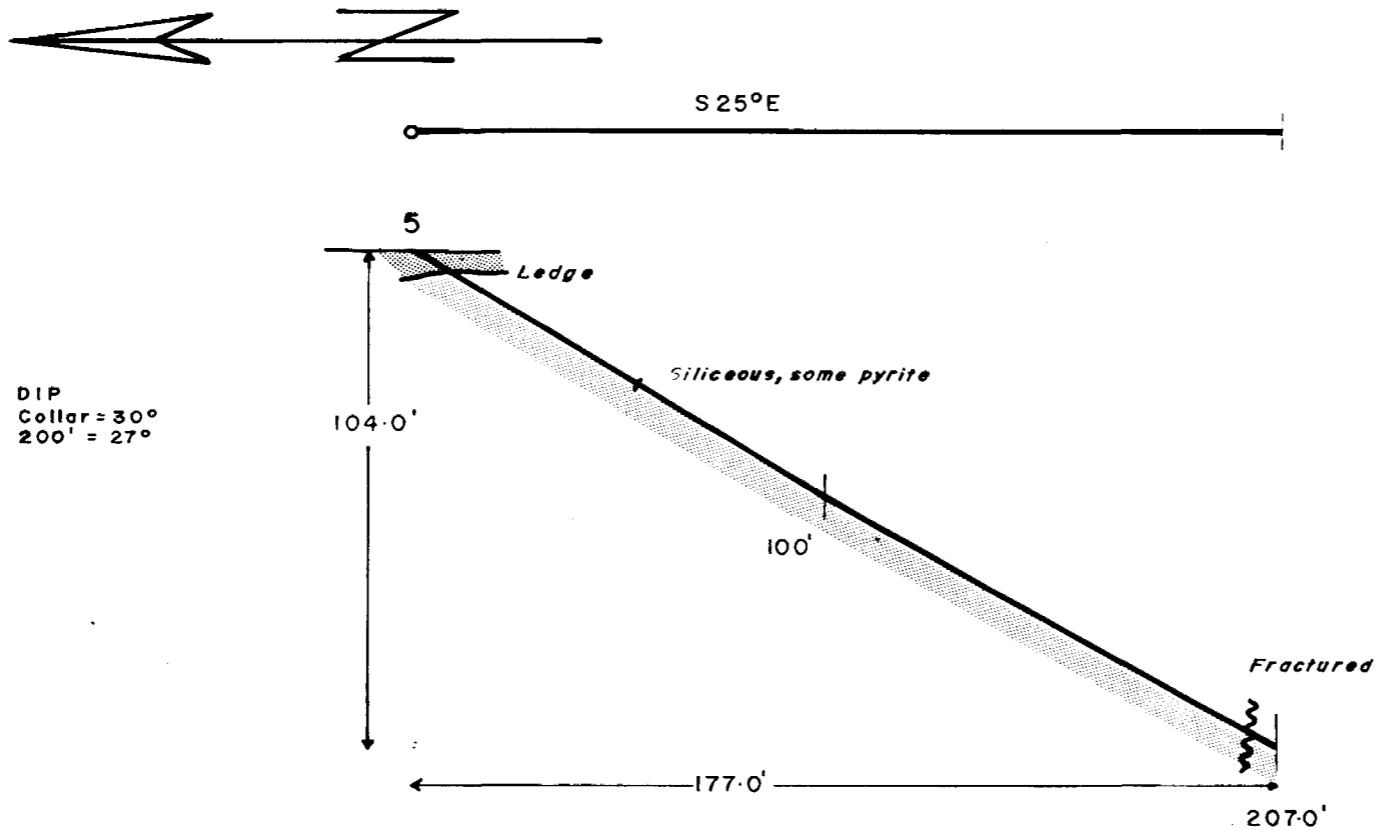
HOLE NUMBER 5
 SHEET NO. 1 of 1
 SECTION FROM 0 TO 207.0'
 STARTED July 21st, 1963
 COMPLETED July 23rd, 1963
 ULTIMATE DEPTH 207.0'
 PROPOSED DEPTH _____

DRILLED BY Bradley Bros. Limited, Noranda, P.Q.

HONEY PRINTING SERVICE, TORONTO—4804

Distance		ROCK	DESCRIPTION	Sample No.	Length Ft.	ANALYSIS							
From	To					Au.	Ag.	Pb.	Zn.	Cu.		Ave.	
0	10.0		Casing										
10.0	207.0		Coarse grained dark grey basic granular structure (gabbro)? grading to more siliceous at 55'. Massive with very occasional carbonate seams and very rarely pyrite crystals. Badly broken ground 201' to 206' Note:- This outcropping on geological map 46A is mapped as diorite. My naming it gabbro is to distinguish it from the more siliceous structures which are also named diorite. It is probably a basic phase of the same intrusive. <div style="text-align: center; margin-top: 20px;">END OF HOLE</div>										

F. M. Smith



DIP
Collar = 30°
200' = 27°

LEGEND

-  OVERBURDEN
-  GABBRO

Location
660' W., 715' S of Post I-116596
OR
Line 72 W, 21+605

Hardiman Bay Mines Limited
Section Through Hole No. 5
Scale 40' to 1"
F. M. Smith July 1963

DIAMOND DRILL RECORD

PROPERTY HARDIMAN BAY MINES LIMITED
LOCATION: LAT. 0°W & 430°N of Post #2 56 / 60 W
 DEP. Claim S 116593 50 / 30 S
ELEVATION OF COLLAR
DATUM
DIRECTION AT START: BEARING S 50° E (magnetic)
 DIP 33°
LOGGED BY F.M. Smith HOR. COMP. 147.0'
PURPOSE OF HOLE VER. COMP. 92.0'

TESTS

Ft.	Dip.	Ast. Bearing	Ft.	Dip.	Ast. Bearing	Core	
						Ft. Received	p.c. Recovery
150'	32°						

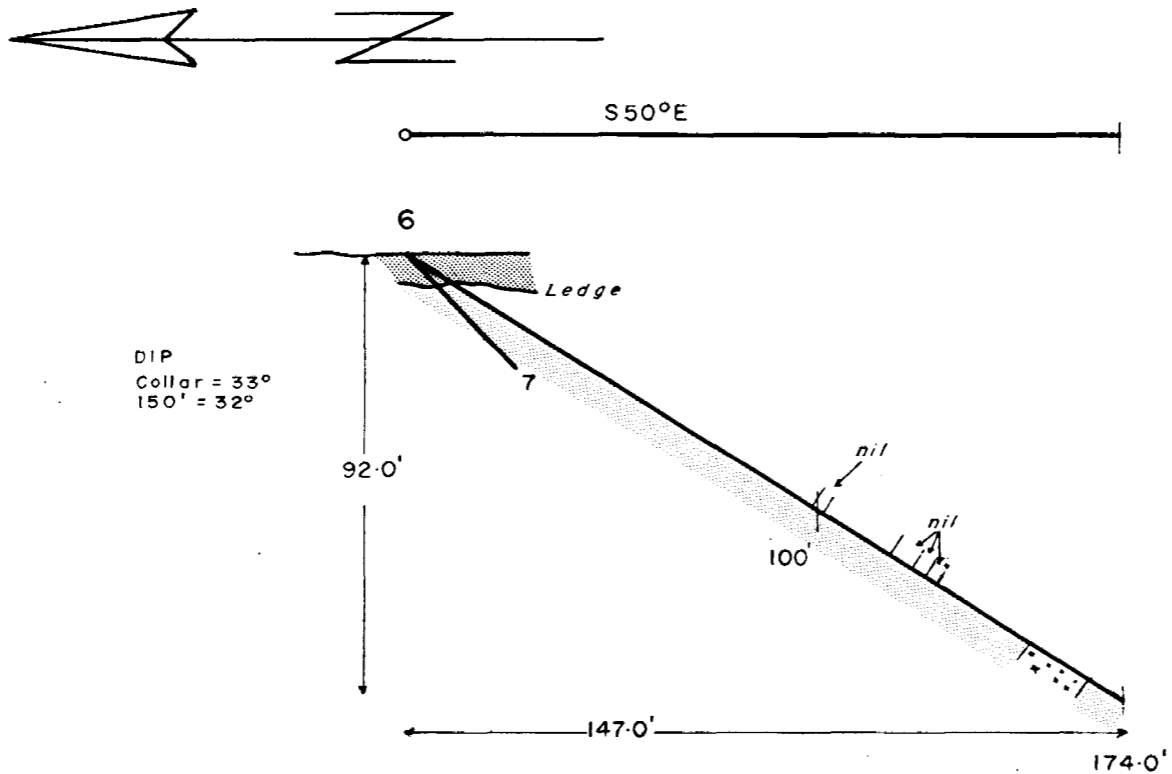
HOLE NUMBER 6
SHEET NO. 1 of 1
SECTION FROM 0 TO 174.0'
STARTED July 29th, 1963
COMPLETED July 30th, 1963
ULTIMATE DEPTH 174.0'
PROPOSED DEPTH

DRILLED BY Bradley Bros. Limited, Noranda, P.Q.

HONEY PRINTING SERVICE, TORONTO—4604

Distance		ROCK	DESCRIPTION	Sample No.	Length Ft.	ANALYSIS						
From	To					Au.	Ag.	Pb.	Zn.	Cu.	Ave.	
0	12.0		Casing									
12.0	152.0		Basic diorite occasional quartz seams from 41.0' with scattered pyrite fairly, massive 2" granite dike at 51.7' 4" quartz at 72.0' granitic injection 99.5' - 101.5' some pyrite sampled quartz injections 118.0' 2" & 3" at 123.0' 3" quartz sampled	75	2.0	Nil						
			123.0' - 126.0' quartz seams sampled	76	5.0	Nil						
			126.0' - 129.0' quartz seams sampled	77	3.0	Nil						
152.0	166.0		Feldspar porphyry contact with massive basic diorite	78	3.0	Nil						
166.0	174.0		END OF HOLE									

F. M. Smith



LEGEND

	OVERBURDEN
	PORPHYRY
	GABBRO

Location

0'W., 430'N of Post 2-116593

OR

Line 56+60W, 50+30S

Hardiman Bay Mines Limited

Section Through Hole No. 6

Scale 40' to 1"

F.M. Smith

July 1963

DIAMOND DRILL RECORD

PROPERTY HARDMAN BAY MINES LIMITED
LOCATION: LAT. 0° W & 430° N of Post #2 56 / 60 W
 DEP. Claim S 116593 50 / 30 S
ELEVATION OF COLLAR
DATUM
DIRECTION AT START: BEARING
 DIP S 60° E (magnetic)
LOGGED BY F. M. Smith HOR. COMP. 156.0'
PURPOSE OF HOLE VER. COMP. 155.0'

TESTS

Fl.	Dip.	Ast. Bearing	Fl.	Dip.	Ast. Bearing	Core	
						Ft. Received	p.c. Recovery
200'	43°						

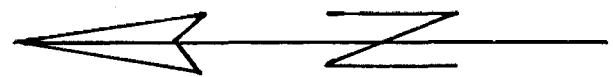
HOLE NUMBER 7
SHEET NO. 1 of 1
SECTION FROM 0 TO 220.0'
STARTED July 31st, 1963
COMPLETED August 2nd, 1963
ULTIMATE DEPTH
PROPOSED DEPTH 220.0'

DRILLED BY Bradley Bros. Limited, Noranda, P.Q.

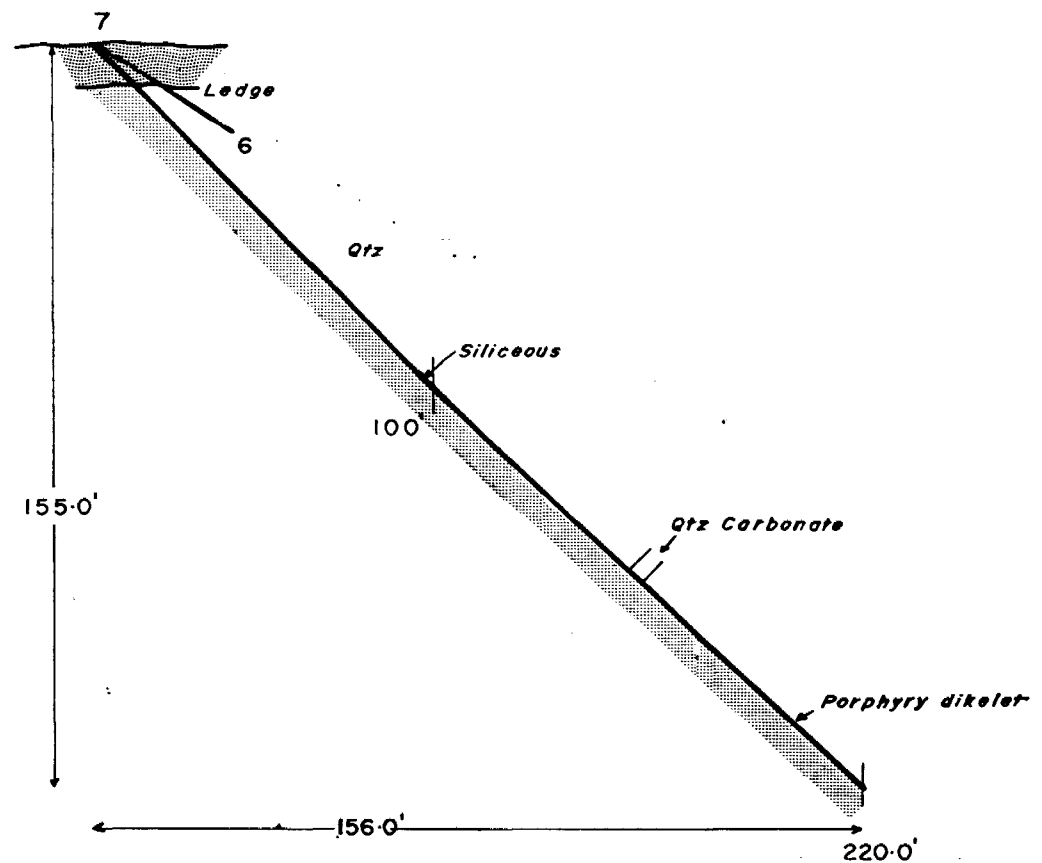
HONEY PRINTING SERVICE, TORONTO—4804

Distance		ROCK	DESCRIPTION	Sample No.	Length Ft.	ANALYSIS									
From	To					Au.	Ag.	Pb.	Zn.	Cu.			Ave.		
0	10.0		Casing												
10.0	220.0		Basic diorite Quartz seams 67.0' - 69.0' granitic injection 2" at 70.1' - siliceous dike 95.0' - 100.0'. 175.0' to 178.5' quartz seams and carbonate seams some chlorite sampled 178.5' - 183.0' porphyry dike 3" quartz at 201.0' no metallic mineral. Massive diorite	79	3.5										
			END OF HOLE												

F. M. Smith



S 60° E



LEGEND



OVERBURDEN

GABBRO (Basic Diorite)

Location

0' W., 430' N of Post 2-116593

OR

Line 56+60W, 50+30S

Hardiman Bay Mines Limited

Section Through Hole No. 7

Scale 40' to 1"

F. M. Smith August 1963

DIAMOND DRILL RECORD

PROPERTY HARDIMAN BAY MINES LIMITED
LOCATION: LAT. 195°W & 500'N of Post #2 57 / 45 W
 DEP. Claim S 116593 49 / 50 S
 ELEVATION OF COLLAR _____
 DATUM _____
 DIRECTION AT START: BEARING S 60° E (magnetic)
 DIP 34°
 LOGGED BY F.M. Smith HOR. COMP. 207.0'
 PURPOSE OF HOLE _____ VER. COMP. 136.0'

TESTS

Ft.	Dip.	Ast. Bearing	Ft.	Dip.	Ast. Bearing	Core	
						Ft. Received	p.c. Recovery
200'	33°						

HOLE NUMBER 8
SHEET NO. 1 of 1
SECTION FROM 0 TO 247.0'
STARTED August 3, 1963
COMPLETED August 7, 1963
ULTIMATE DEPTH 247.0'
PROPOSED DEPTH _____

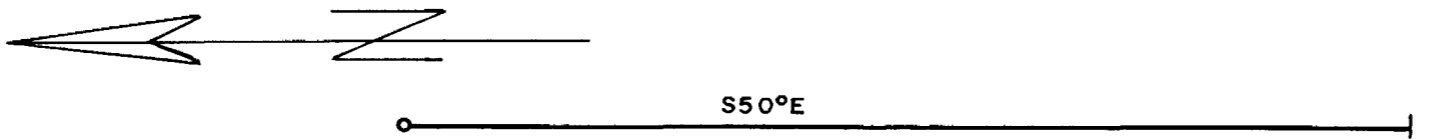
DRILLED BY Bradley Bros. Limited, Noranda, P.Q.

HONEY PRINTING SERVICE, TORONTO—4804

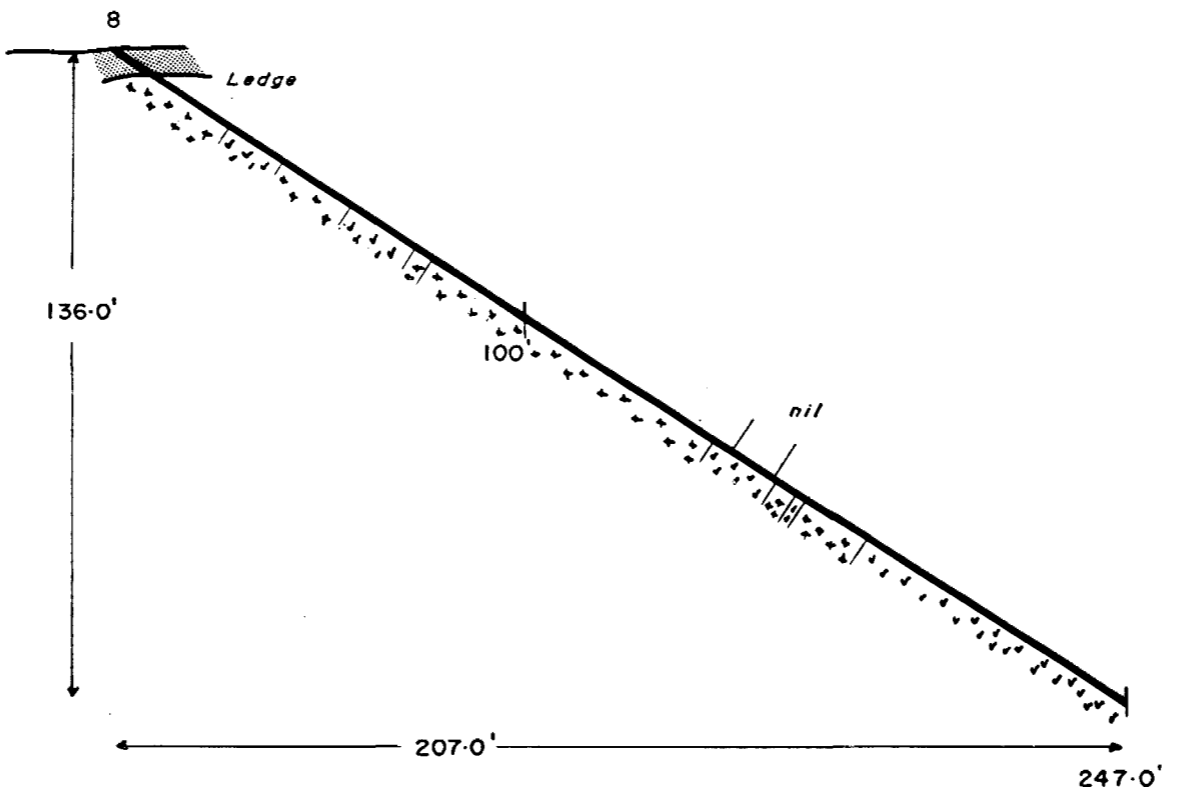
Distance		ROCK	DESCRIPTION	Sample No.	Length Ft.	ANALYSIS						
From	To					Au.	Ag.	Pb.	Zn.	Cu.	Ave.	
0	8.0		Casing									
8.0	27.0		Porphyry feldspar									
27.0	40.0		Basic diorite									
40.0	58.0		Feldspar porphyry intrusive contact with									
58.0	75.0		basic diorite									
75.0	78.0		Porphyry									
78.0	90.0		Basic diorite									
90.0	147.0		Porphyry intrusive contacts									
147.0	161.0		Basic diorite numerous quartz seams & mineral sampled									
			Diorite quartz seams some pyrite	83	3.0	Nil						
			Silicified diorite quartz seams some pyrite	84	2.5	Nil						
			Silicified diorite quartz seams some pyrite	85	2.5	Nil						
			Silicified diorite quartz seams some pyrite	86	2.0	Nil						
161.0	167.0		Porphyry									
167.0	169.0		Diorite									
169.0	184.0		Porphyry quartz seams some pyrite sampled									
			Quartz seams some pyrite	87	1.5	Nil						
184.0	247.0		Massive basic diorite									

END OF HOLE




F. M. Smith



DIP
Collar = 34°
200' = 33°



LEGEND

-  OVERBURDEN
-  PORPHYRY
-  DIORITE

Location
195' W., 600' N. of Post 2-116593
OR
Line 57+45W, 49+50S

Hardiman Bay Mines Limited
Section Through Hole No. 8

Scale 40' to 1"
F.M. Denton
August 1963

PROPERTY **HARDIMAN BAY MINES LIMITED**

LOCATION: LAT. **275'W & 465'N Post #2 58 / 50 W**
 DEP. **Claim S 116593 49 / 75 S**

ELEVATION OF COLLAR

DATUM

DIRECTION AT START: BEARING **S 50° E (magnetic)**
 DIP **39°**

LOGGED BY **F.M. Smith** HOR. COMP. **222.0'**

PURPOSE OF HOLE VER. COMP. **130.0'**

DIAMOND DRILL RECORD

TESTS

Ft.	Dip.	Ast. Bearing	Ft.	Dip.	Ast. Bearing	Core	
						Ft. Received	p.c. Recovery
200	28°						

HOLE NUMBER **9**

SHEET NO. **1 of 1**

SECTION FROM **0** TO **251.0'**

STARTED **August 10, 1963**

COMPLETED **August 12, 1963**

ULTIMATE DEPTH **251.0'**

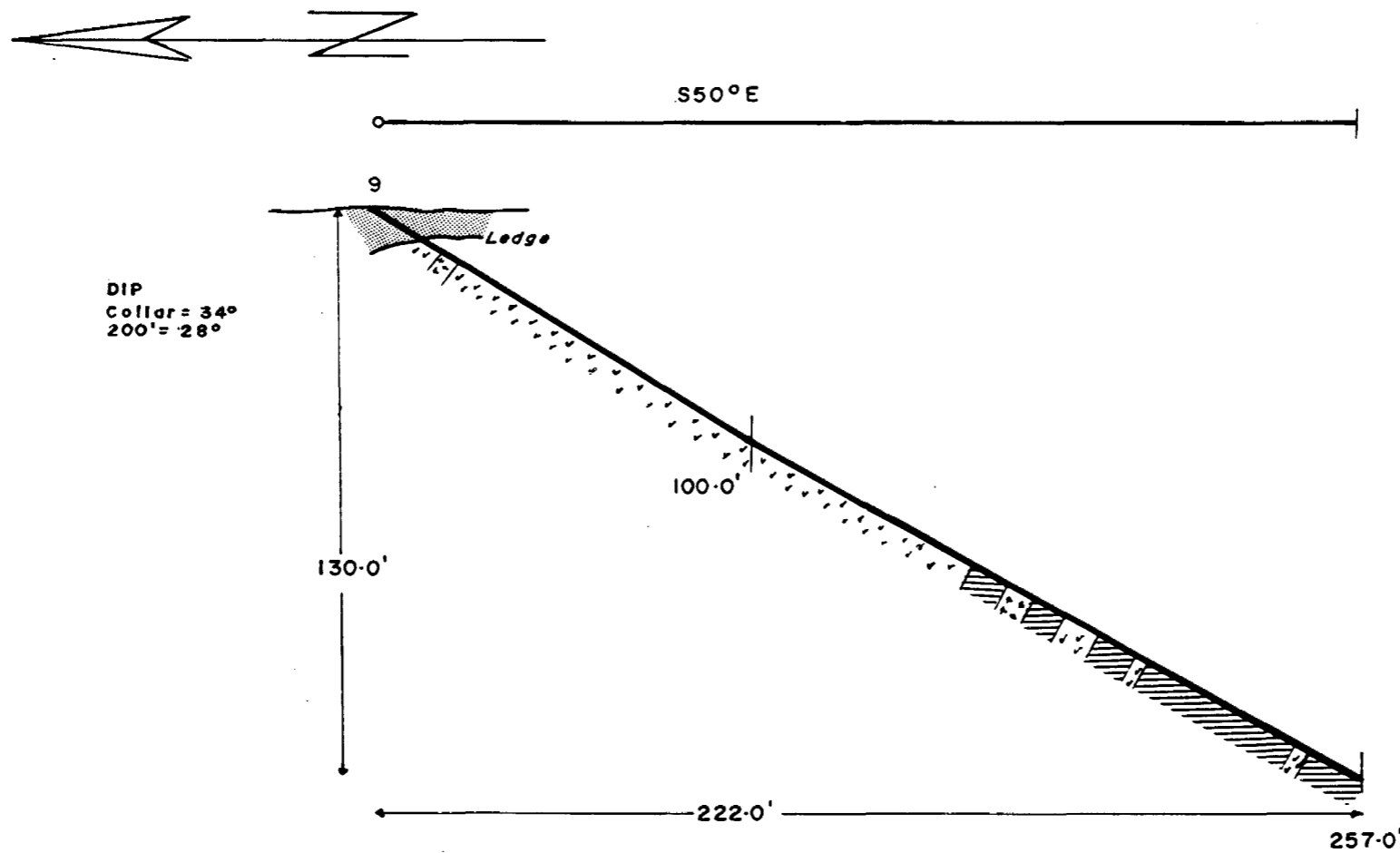
PROPOSED DEPTH

DRILLED BY **Bradley Bros. Limited, Noranda, P.Q.**

HONEY PRINTING SERVICE, TORONTO—4804

Distance		ROCK	DESCRIPTION	Sample No.	Length Ft.	ANALYSIS					
From	To					Au.	Ag.	Pb.	Zn.	Cu.	Ave.
0	11.0		Casing								
11.0	16.0		Basic diorite								
16.0	22.0		Feldspar porphory								
22.0	158.0		Basic diorite								
158.0	166.0		Greenstone								
166.0	173.0		Feldspar paphory several quartz seams								
173.0	181.0		Greenstone								
181.0	189.0		Silicified diorite quartz seams vein condition sampled	88	3.0	Nil					
181.0	184.0		Silicified diorite quartz seams some pyrite	89	3.0	Nil					
184.0	187.0		Silicified diorite quartz seams some pyrite	90	2.0	Nil					
187.0	189.0		Silicified diorite quartz seams some pyrite								
189.0	198.0		Greenstone								
198.0	201.0		Basic dike dark fine grained some pyrite								
201.0	240.0		Massive greenstone								
240.0	244.0		Diorite								
244.0	251.0		Massive greenstone								
END OF HOLE											

F. M. Smith



DIP
Collar = 34°
200' = 28°

LEGEND

-  OVERBURDEN
-  PORPHYRY
-  DIORITE
-  GREENSTONE

Location
275' W., 465' N of Post 2-116593
OR
Line 58+50W., 49+75S

Hardiman Bay Mines Limited
Section Through Hole No. 9
Scale 40' to 1"

L.M. Grant August 1963

DIAMOND DRILL RECORD

PROPERTY HARDIMAN BAY MINES LIMITED

LOCATION: LAT. 350° W & 410° N of Post 2 59° 40' W

DEP. claim S 116593 50° 20' S

ELEVATION OF COLLAR _____

DATUM _____

DIRECTION AT START: BEARING S 50° E (magnetic)

DIP 34°

LOGGED BY F.M. Smith HOR. COMP. 178.0'

PURPOSE OF HOLE _____ VER. COMP. 87.0'

TESTS

Ft.	Dip.	Ast. Bearing	Ft.	Dip.	Ast. Bearing	Core	
						Ft. Received	p.c. Recovery

HOLE NUMBER 10

SHEET NO. 1 of 1

SECTION FROM 0 TO 154.0'

STARTED August 13, 1963

COMPLETED August 14, 1963

ULTIMATE DEPTH 154.0'

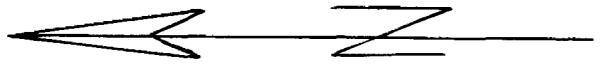
PROPOSED DEPTH _____

DRILLED BY Bradley Bros. Limited, Noranda, P.Q.

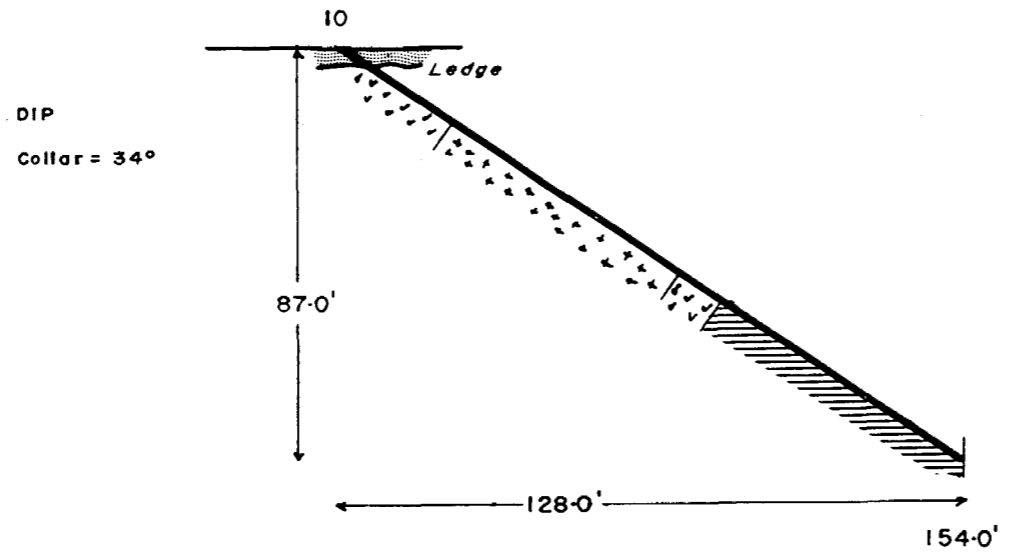
HONEY PRINTING SERVICE, TORONTO—4604

Distance		ROCK	DESCRIPTION	Sample No.	Length Ft.	ANALYSIS						
From	To					Au.	Ag.	Pb.	Zn.	Cu.	Ave.	
0	8.0		Casing									
8.0	29.0		Basic diorite									
29.0	85.0		Feldspar porphory									
85.0	95.0		Basic diorite									
95.0	154.0		Massive greenstone									
			END OF HOLE									

F.M. Smith



S 50° E



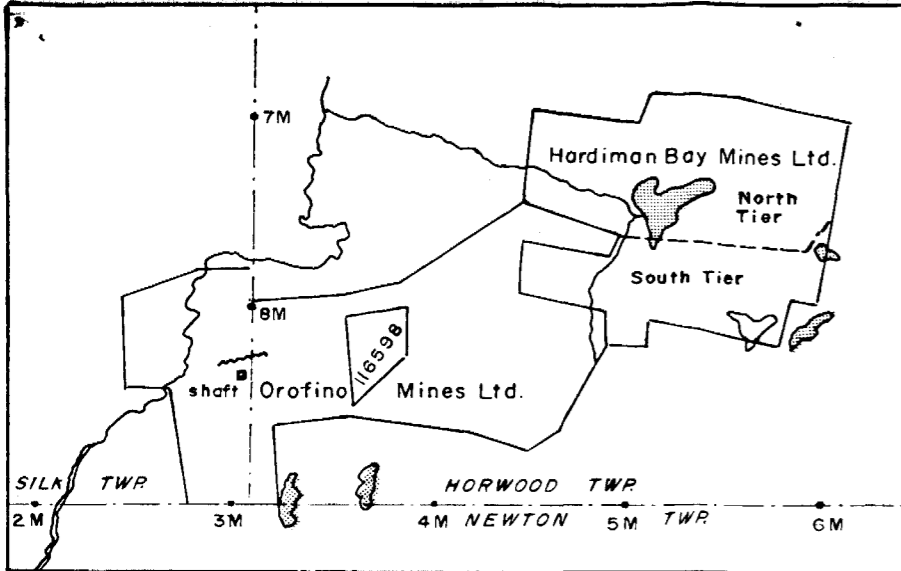
LEGEND

-  OVERBURDEN
-  PORPHYRY
-  DIORITE
-  GREENSTONE

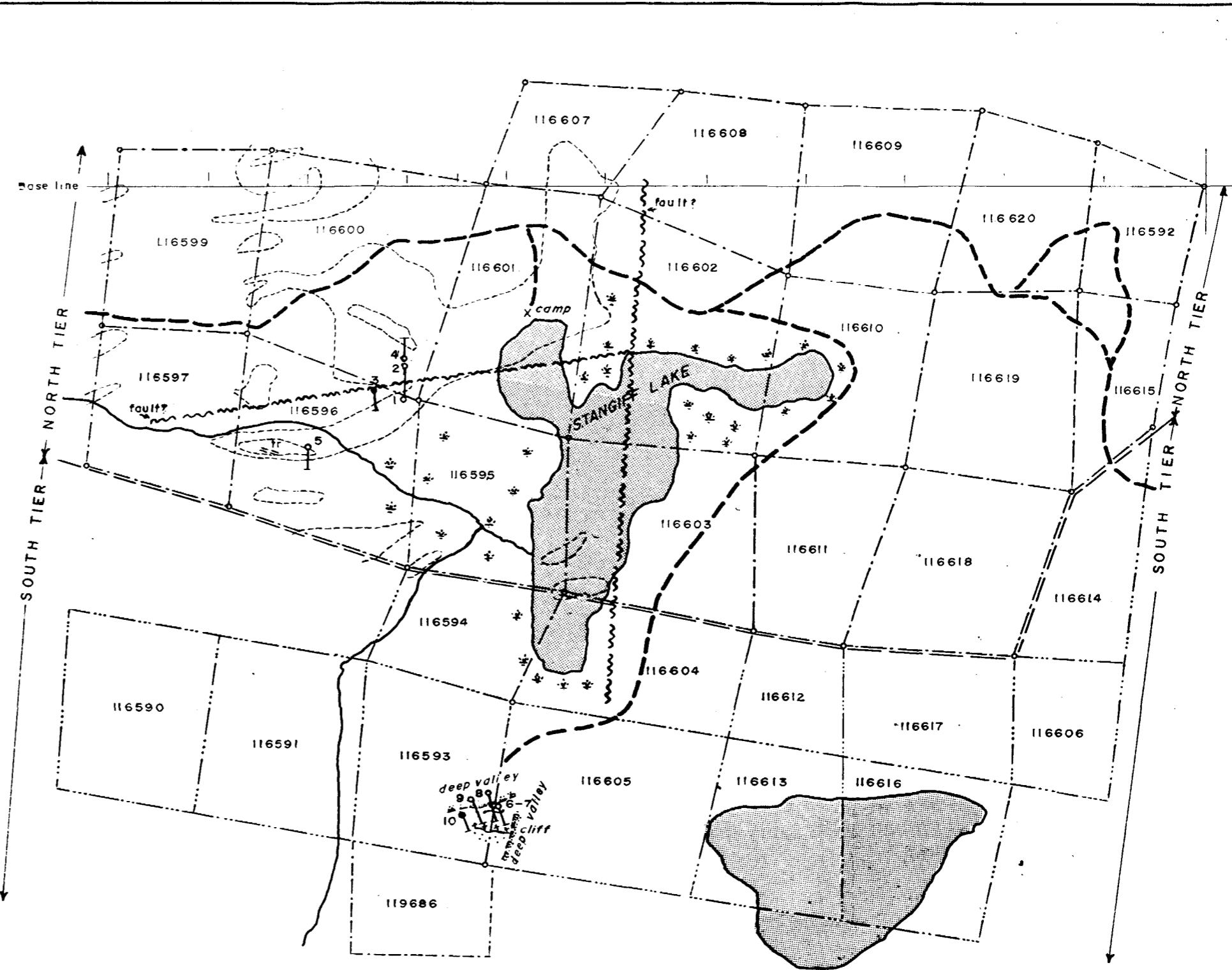
Location
 350 W., 410 N of Post 2-116593
 OR
 Line 59+40W, 50+20S

Hardiman Bay Mines Limited
 Section Through Hole No. 10

Scale 40' to 1"
F. M. Smith August 1963



LOCATION MAP
1 in. to 1 mi.



LEGEND

- Magnetic anomaly - 1000 gammas -
- Diamond drill hole
- Quartz showing
- Old trench
- Inferred fault
- Swamp

MAP COMPILED BY - 1. Reduction of geophysical 200 scale map (North Tier)
 2. Claims map
 3. Projection cutline grid (South Tier)
 4. Drill logs by F. M. Smith, P. Eng.

88W — 80W — 72W — 64W — 60W — 56W — 48W — 40W — 32W — 24W — 16W — 8W — 0+0

HARDIMAN BAY MINES LIMITED
HORWOOD LAKE
Sudbury Mining District
Ontario

Scale 1" to 1000'
F. M. Smith

R. MASSEY WILLIAMS
 Professional Engineer
 August 1963